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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/097,383	06/16/1998	KARE CHRISTIANSEN	PM254781	2876
909	7590	10/19/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			SHAY, DAVID M	
			ART UNIT	PAPER NUMBER
			3735	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/097,383

Applicant(s)

CHRISTIANSEN ET AL.

Examiner

david shay

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on August 1, 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 8, 10-15, 18 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 10-15, 18, and 22-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

In view of the Brief on Appeal filed on August 1, 2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

With regard to claim 1, applicant argues that Eckhouse does not disclose or suggest an apparatus as claimed. Specifically, applicant argues that Eckhouse does not disclose an apparatus for pulsed light cosmetic or therapeutic photo treatment comprising a housing (see Figure 1, element 12); a gas filled arc lamp light source within the housing to produce a pulsed light output, (see Figure 1, elements 14); the and a light output aperture defined by the iris (see Figure 1, element 20). Clearly Eckhouse teaches a light source in the form of flash lamp 14. For example at column 5 lines, 14 through 20 Eckhouse discusses light source 14 having an outer glass an elliptical reflector, the set of optical filters, 18 and iris 20 further, light source 14, located in housing 12 can be a typical incoherent light source such as a gas filled linear flash lamp. Later in column 6, lines 15 to 16 Eckhouse discusses the arc length of the flash lamp thus

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clearly this gas filled arc lamp has a housing and an aperture defined by iris 20. Applicant continues, arguing that Eckhouse "does not disclose or suggest a filter system that consists of (a) space. A filter for filtering out UV and near UV wavelengths shorter than 510 nm band for passing longer wavelengths and (b) water, the water being located in the apparatus for filtering out undesired skin heating the wavelengths of light, which would otherwise pass to the output aperture". However, applicant fails to explain in what way the structure of Eckhouse would not read on the claimed structure. For example, as discussed in the succeeding paragraph in applicant's arguments Eckhouse undeniably teaches the use of water within the housing. Applicant has yet to satisfactorily explain in what way the water disclosed by Eckhouse will fail to filter the light, and therefore not fulfill recitation (b) regarding the filter system. Applicant also acknowledges the expressed teaching of Eckhouse to include a further filter in the device discussed in conjunction with figure 4. As the examiner has already shown by means of the Schott datasheet, the filter expressly disclosed by Eckhouse manifestly fulfills recitation (a) of the recitation regarding the filter system. Applicant has instead chosen to rely on the unsupported assertion that "[N]o equivalent filtering requirement arises in relation to invasive devices where the light of course does not impinge on the skin" as the embodiments discussed in figures 4 and 8, which are concerned with coupling light to an optical fiber for invasive treatment. However, as this argument completely ignores the fact that Eckhouse teaches expressly the use of a filter that cuts off light above 550 nm, it is not convincing. After describing the construction of Figure 4, applicant then argues that there is no reason to include optical filtering as discussed in section (b) of the recitation regarding the filtering system. Once again, applicant completely disregards the fact that the water will filter the light in a similar

fashion regardless of the intention of the person constructing the device in the examiner once again notes that simply because Eckhouse does not disclose the filtering properties of water, does not alter the physical properties of the material. Applicant has disclosed no special treatment, process, or additive to alter the filtering behavior of the water, therefore the water of Eckhouse will perform in the same manner, even if Eckhouse were ignorant of these properties.

Applicant then argues that as there is a fiber optic occupying the output aperture of the housing that such output aperture does not exist in the device of Eckhouse. However, the mere fact that there is an element situated within the aperture (e.g. an optical fiber) does not remove the existence of the aperture, which allows the element to be so situated. Applicant then attempts to differentiate of the claimed invention from the device of Eckhouse based on the intended use of one aspect of the Eckhouse device, asserting that the embodiment employing the filters is intended for use in industrial applications. Even assuming that the intended use somehow imparts additional structure (which applicant implies, although not specifically stating, by asserting that this disclosure somehow structurally distinguishes the claimed a device from that of Eckhouse), applicant conveniently ignores several recitations in column 10 of Eckhouse, for example in lines 46 to 50, in the paragraph immediately preceding the paragraph, wherein the specific filters are discussed, Eckhouse specifically discusses employing a light guide, tailored to "match the shape of the vessel being treated" and in the paragraph in which the specific filters are discussed Eckhouse also makes reference to "the treatment area". These recitations clearly bespeak the use of the device in a medical context, and therefore any distinction predicated on the use of such devices in an industrial context, even assuming such difference could be inferred based only on the intended use, is immaterial.

Applicant continues, arguing that the device, wherein the various embodiments involving light guides are employed does not included disclosure of the use of water. The examiner must respectfully disagree, clearly these embodiments are discussed in the context of Figures 4 and 8 and thus must be considered as embodiments of these figures. It is noted that there is no admonition to exclude water from these embodiments of the Figures of 4 and 8. Further, as clearly stated in column 10, lines 7 through 14, the use of the fluid such as water "reduces the losses that are associated with glass to air transitions such as the transition between the flash lamp envelope material and air. If a fluid is used in the reflector volume, and it's refractive index can be chosen such that the rays trapped in the conical section are also trapped in the fiber" (also see the italicized text at page 10 of the instant response). Thus, it is unclear how applicant believes that further embodiments, which involve the couplers and which involve a "glass to air transition" as a result of the couplers would not include water.

With respect to the obviousness rejection, applicant attacks the combination, alleging that the examiner's motivation is insufficient for a *prima facie* case of obviousness. Apparently, applicant's argument is based on the assertion that "Gustafsson fails each or suggest that water cooling makes lamps more effective". This is in direct contrast to the explicit statement of Gustafsson that the embodiment of the lamp employing the flowing coolant is due to its construction, much more effective. Even assuming *arguendo* that such disclosure were absent from Gustafsson, Eckhouse at column 10 lines 7, also teaches that water is "very effective in cooling the flash lamp". As one having ordinary skill in the art would clearly be aware the use of a coolant which is circulating would provide a greater cooling ability than one which is not flowing. Thus even assuming that one having ordinary skill in the art would need to rely on the

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disclosure of Eckhouse to provide the motivation for combination, it is clear that the provision of a circulating coolant as taught by Gustafsson would still be warranted and proper, under 35 USC 103. Applicant instead attempts to divert attention to a further aspect of the device, which interestingly is not even mentioned, until after the discussion of the increased effectiveness of the alternative construction, which occurs after only the flowing coolant is discussed. While applicants prescience is noted, there is no showing of record that one having ordinary skill in the art shares this ability. And one is left with the clear conclusion, that one having ordinary skill in the art, could only interpret the discussion of increased effectiveness to be referring to the aspect of the embodiment discussed in conjunction with the discussion of increased effectiveness - the circulating water aspect of this embodiment.

Applicant then goes on to argue that the examiner has "overstated" the teaching that one of ordinary skill in the art would have derived from the Eckhouse discussion of the use of water. The examiner must, respectfully, disagree. Despite the discussion in Eckhouse of the usefulness of water for coupling the light into the output coupler this does not remove from the reference the clear and explicit statement that water is effective in cooling the flash lamp. It is curious to note, and applicant posits no theory as to why, Eckhouse would mention such a property, if indeed, as alleged by applicant, high repetition rates are not used in the kind of apparatuses described by Eckhouse". Further, applicants new theory that "skin treatments do not require fast repetition of pulses; once a pulse has been applied to an area of skin, the clinician or operator moves the device to another area" is in direct contradiction to applicants disclosure. For example at page 23 of the originally filed disclosure with respect to Figure 6, which specifically discusses

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pulse trains of "five pulses of 3 ms duration spaced by delay intervals of 1.5 ms". Eckhouse also teaches the use of pulse trains at column 15, lines 55 to 63.

Applicant further theorizes that because water is not used in the preferred embodiment of Eckhouse, that a "strong" motivation is needed to support the combination. The examiner is unfamiliar with such a requirement and requests that applicant support this contention using the case law, statute or regulation from which it is derived that the examiner may more fully evaluate that which is encompassed by "strong" motivation. In the absence of such showing the examiner must presume that the "normal" motivation, as set forth in *Graham v. John Deere*, and as set forth in the examiner's rejection is all that is required.

Regarding claims 2, 3, and 8, applicant argues that because a portion of the light which finds its way through the water into the output fiber will interact with the dye contained in pipe 71, that somehow the radiation, which has not interacted with the dye has not gone through the water. This is not understood and the examiner begs applicant's indulgence in explaining exactly how the water is circumvented in this instance. Regarding claims 22 and 23, applicant argues that Gustafsson fails to disclose a gas filled arc lamp, wherein this lamp is a xenon lamp. The examiner respectfully notes the disclosure at column 1, line 55, of Gustafsson, which specifically calls for the use of an arc lamp and the disclosure with respect to Figure 2, at column 2, lines 54 to 55 which states that the lamps include a gas such as xenon. In view of these disclosures, it is unclear how applicant can allege that there is no teaching of a xenon arc lamp in Gustafsson.

With regard to the rejection of claims 10-15, 24, and 25 and the rejection of claim 18, applicant merely argues that the base combination is defective, and thus the rejections predicated



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their own or similarly the defective. However, as these rejections are not defective, as seen from the remarks above, these arguments are not convincing.

Apart from these arguments, it is noted that while the disclosure as originally filed discusses the time weighted average of the light output power, the Figures illustrate this phenomenon by showing the time weighted current average of the device (see the originally filed disclosure, page 22, first four full paragraphs). As such, these values must track each other. Thus the current wave forms for the simmer circuit, shown in Figure U of Optoelectronics clearly shows current pulses (and therefore necessarily light output pulses) which are essentially square and thus display the claimed time weighted average light output power.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure is silent on the form which a "means for adjusting the time weighted average light power output" would take.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 is indefinite as it fails to further limit the claim from which it depends, as it merely recites that the light source (recited in claim 1 as "a gas filled arc lamp light source") comprises a gas filled arc lamp, and therefore what further limitation is intended to be implied is unclear.

Claims 1 and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eckhouse.

See figures 1-3 and 15-18 and column 5, line 9 to column 12, line 42.

Claims 1-3, 8, 22, and 23 are rejected under 3 U.S.C. 103(a) as being unpatentable over Eckhouse in combination with Gustafsson. Eckhouse teaches a device as claimed except for the specific recitation of the flow path. Gustafsson teaches a xenon lamp using circulating water to cool flash tubes and an optical fiber applicator with a convex tip. It would have been obvious to the artisan of ordinary skill to employ the lamp and cooling system; of Gustafsson in the device of Eckhouse, since Eckhouse gives no particular coolant system design, and since the cooling system of Gustafsson makes the lamp much more effective (see column 2, line 62 to column 3, line 6), thus producing a device such as claimed.

Claims 10-15, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhouse in combination with Gustafsson as applied to claims 1, 3, 22, and 23 are above, and further in view of Anderson et al and Optoelectronics. Optoelectronics teaches the use of power supplies that use simmers circuits and apply square pulse to the flask tube. Anderson et al teach

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the use of square wave pulses and a convex applicator tip. It would have been obvious to the artisan of ordinary skill to employ an applicator tip as taught by Anderson et al since this allows treatment of a larger area, as taught by Anderson et al; to employ the square wave light pulses therein, since this allows a more uniform optical field; to apply a simmer circuit and a power supply to produce square pulses, since these will aid in the production of flat topped optical pulses, which is desirable as taught by Anderson et al; and to provide a concave or parallelepiped shape at the light guide distal end, since these are equivalent to the convex tip and provide no unexpected result, thus producing a device such as claimed.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhouse in combination with Gustafsson as applied to claims 1-3, 22, and 23 are above, and further in view of Vassiliadis et al. Vassiliadis et al teach the desirability of employing an interlock on a filter. It would have been obvious to the artisan of ordinary skill to employ an interlock on the filter in the device of Eckhouse or Gustafsson since this would provide a safer device, thus producing a device such as claimed.

Applicant's arguments filed July 16, 2004 have been fully considered but they are not persuasive. The argument are \_\_\_\_\_ for the reasons set forth above.

This is a Request for Continued Examination of applicant's earlier Application No. \*\*\*. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader, can be reached on Monday, Tuesday, Wednesday, and Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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